

[Report of the Medical Officer of Health for Whitechapel].

Contributors

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FIRST QUARTERLY REPORT

ON THE

Sanitary Condition

OF

THE WHITECHAPEL DISTRICT;

BY

JOHN LIDDLE,

MEDICAL OFFICER OF HEALTH.

Read to the Board 13th October, 1856.

GENTLEMEN,

On my appointment as the Medical Officer of Health to the Whitechapel District, your Board resolved that I should prepare a report upon the sanitary state of the district every week. For the first sixteen weeks, from the date of my appointment, (25th February, 1856), I regularly furnished such report. Your Board then directed that I should prepare a quarterly, instead of a weekly report, and resolved, that those hitherto presented, should be continued under the title of "weekly statements."

By this arrangement, the reports intended for publication will not be encumbered with matter of a mere passing interest, but will contain such information only, as may be considered sufficiently important to engage the attention of the rate-payers generally.

In my first report or statement, dated 3rd March, 1856, I suggested a plan of operations, whereby I hoped to bring regularly under your notice, 1stly, The weekly mortality of the district, 2ndly, The amount of sickness arising from zymotic diseases among the poor, and 3rdly, The work done by your Inspectors of Nuisances.

I regret that I have not as yet furnished you with a detailed report of the mortality of the district, but I expect shortly to have it in my power to do so; as I believe that the Registrar General is about to make such arrangements in his office, that each Medical Officer of Health will have weekly, not only an account of the mortality of his district, but information respecting the cause of death of each individual. I have hitherto procured the information relative to the mortality of the district, which I have from time to time laid before you, from the published returns of the Registrar General.

My only source of information relating to the prevalence of zymotic diseases, and their localities, has been from the books of the Medical Officers of the Union. These books do not give any thing like the total amount of such diseases ; for, although a great many cases of epidemic disease came under the cognizance of the Medical Officers of the Union, yet, very many cases of small pox, measles, diarrhœa, hooping cough, scarlet fever, and typhus fever occur, and are prescribed for by the Medical Officers of the Hospitals and Dispensaries, and by private practitioners, or are allowed to run their course without the aid of medical advice.

By knowing the localities and houses where epidemic diseases prevail, we can direct our early attention to the infected spots ; while the other districts, which are comparatively free from disease, may be left unnoticed, until they are inspected by the Inspectors of Nuisances, in the course of their regular house to house visitation.

As regards the laying before you an account of the work done by your Inspectors of Nuisances, I may remark, that until the middle of July, no regular system of sanitary inspection had been carried out. The work done by those officers was very laborious, and was most ably and zealously performed, but not being systematic, it was not in my power to lay before you the result of their labours in such a satisfactory manner as I could wish. Since the 14th of July, a form of books has been kept, in which will be recorded the sanitary condition of every locality and house in the district. This will enable us to see from time to time the progress that is made in sanitary improvements.

A record of all cases where notices have been issued by the Inspectors of Nuisances, requiring landlords to make structural alterations in their premises, to improve their sanitary condition, is kept by your Medical Officer of Health, and is laid before the Board and Committee of Works every Monday and Thursday evening.

It has been my object to endeavour to avoid all harsh and arbitrary proceedings in carrying into effect the sanitary provisions of the Metropolis Local Management Act, and the Act for the Removal of Nuisances. I am happy to say that, considering the numerous nuisances which have been inspected, very few summonses have been taken out against landlords for neglecting to comply with the requirements of the Acts of Parliament ; and I expect that when the clauses relating to nuisances become more generally known and better understood, the assistance of the magistrates to enforce their provisions will be less frequently required.

I may here state for the information of landlords and the public generally, that the District Board of Works has the power of compelling owners of property to provide all privies with suitable trapped soil-pans, and suitable water supply and water apparatus, and in every case, where a sewer runs within 100 feet of any part of the premises, to connect the drains with it, and fill up the cesspools, to pave the courts, and keep them in good repair. It has also power to compel each landlord to provide a suitable dust-bin, with proper door and coverings, for the use of his tenants.

Your Inspectors are now making a house to house visitation ; they will visit in rotation every house in the district, and wherever the provisions of the Acts of Parliament are not observed, a notice will be left, informing the landlord of what is required to put his premises in a proper sanitary state. It therefore behoves all landlords, who hold property in the poor localities, to do *at once* all that the Act requires for the comfort and health of their tenants; as, by promptly carrying into effect the provisions of the Sanitary Acts, they will not only save a great amount of labour to your Board and officers, but will avoid the expense which is necessarily incurred by legal proceedings. If landlords or their agents, whenever they collect the rents, would thoroughly inspect their property, complaints would be prevented, and the sanitary condition of the district improved.

Some of the property in this district is in such a deplorable condition owing to its bad original construction, (houses having been built back to back, without a foot of spare ground to place either a privy or water butt) that it cannot be improved, and for the sake of the public health ought to be taken down.

However painful it may be to put owners of property to great expense in making those structural alterations in their courts and houses, and laying on a proper supply of water, yet, the interests of the rate-payers at large must be looked to, for the burden of supporting the sick falls upon them, and many of them suffer privations to meet the demands of the tax-gatherer. While therefore, on the one hand, we must not proceed in a reckless manner so to burden property as to render it entirely unproductive, yet, on the other, we cannot allow the labouring man, whose health is the only property he can call his own, to live in unwholesome places, to the destruction of that capital, by which alone he is enabled to support himself and his family.

The Legislature has recently passed two very important Acts, having for their object the improvement of the habitations of the poor. One of these Acts bears date 1851, and is entitled "An Act to encourage the establishment of lodging-houses for the labouring classes." The other is entitled "An Act for facilitating the erection of dwelling houses for the labouring classes," and is dated 1855. The former of these Acts may be put in operation by any parish in England, having a population according to the last census of not less than ten thousand : the latter Act enables any number of persons, not less than six, to form themselves into a company for the purpose of providing dwellings for the labouring classes, to which the Registrar of Joint Stock Companies shall grant a Certificate of Incorporation ; and which company shall have power to accept grants and leases of lands, and purchase and hold lands, to erect thereon dwellings for the labouring classes, and to let such dwellings to lodgers by the week or month, &c.

The preambles of these two Acts are nearly similar, and to the following effect :—"Whereas it is desirable for the health, comfort, and welfare of the inhabitants of towns and populous districts, to encourage and facilitate the establishment therein of well ordered lodging-houses for the labouring classes ; Be it enacted," &c.

The Dock Companies and manufacturers who employ a large number of workmen and labourers have, through the aid of these Acts of Parliament, opportunities of greatly benefitting those whom they employ, by erecting suitable habitations for their use ; and I have no hesitation in saying that the great boon which would be conferred upon the overcrowded districts of this large city, by the adoption of such a truly philanthropic movement, would be reciprocated upon the projectors, by having at their command a more healthy and respectable class of workmen.*

I have no doubt, from my knowledge, gained by personal intercourse, of the habits of the poor, that they are far more sensible of the comforts and advantages attendant upon sanitary improvements than persons in better circumstances imagine. It is surprising to see with what willingness they point out to any enquiring person the evils which surround them, and express their desire to get them remedied. A short time, however, must necessarily elapse before all the requirements of modern life can be fully appreciated by that class which it is our object to benefit, and it is probable that landlords may be put to expense in making and keeping up those alterations in their premises, which are now considered essential to health and decency, and which the law renders imperative to be done.

In the present state of many of the localities where the poor reside—from the want of level pavement, and consequent bad surface drainage—from the deficient water supply, it is next to impossible for them to keep their houses clean, and the attempt to do so is labour in vain.

To carry out in full efficiency all the sanitary improvements which are now demanded, will be a work of time, and can only be gradually accomplished. It will therefore be expedient in this district, to commence our sanitary improvements where nuisances most abound, and where sickness most prevails.

From the books of the Medical Officers of the Union, we learn that the greatest number of cases of zymotic disease recently occurred in Thomas-street, Moss'-buildings, Great Tongue-yard, Queen-street, Charlotte-court, Dunk-street, Garden-place, High-street, Spital-street, Pelham-street, Princes-street, George-court (Flower and Dean-street), Quaker-street, Grey Eagle-street, Fashion-street, Flower and Dean-street, Great Pearl-street, Little Pearl-street, Keate-street, Keate-court, Wilson's-place, Wilkes-street, George-street, Wentworth-street, Leman-row, Goodman's-yard, Crown-court, Glass House-street, Kettleby-court, George-yard, Goulston-street, and White Bear-court.

The total number of cases of fevers, small pox, and scarlatina, which has been attended by the Medical Officers of the Union, from the 30th of April to

* The number of houses that were removed for the formation of St. Katharine's Docks, which were opened on the 25th October, 1828, was 1033. 541 houses in Aldgate were taken down, and 492 in the precinct of St. Katharine. A large majority of these houses was occupied by the poorer classes. Had the Act of Parliament, which sanctioned this large destruction of the habitations of the poor, provided that the Dock Company should build other houses for the poor in lieu of those they had removed, a great benefit would have been conferred upon the labouring population of this district, and the ill effects of the present state of overcrowding would have been in a great measure prevented.

the 24th of September, amounted to 526. Two hundred and sixty-two of which were attended by Mr. HART, who is surgeon to the Spitalfields medical district. The fact, that Mr. HART has attended one-half of all the cases of the above-named zymotic diseases which have occurred among the poor of the Whitechapel Union, proves that the parish of Spitalfields is the most unhealthy locality within this district. It is therefore to this part of the district, that I would, in the first instance, direct the attention of the Board. *The locality which most pressingly demands the construction of sewers, is the neighbourhood of Flower and Dean-street, in which is situated a small court, called George - court, containing five small houses, where Mr. HART has attended, within the last four months, 23 cases of fever. Grey Eagle-street is without a sewer, and here 19 cases of fever have been under the care of Mr. HART within the last three months.*

The numerous cases of illness which annually come under the notice of the Medical Officers of the Union, testify to the large amount of labour they have to perform in the discharge of their arduous duties; and I take this opportunity of acknowledging, and thanking them for, their courtesy and kindness in giving me much valuable information.

The population of the Whitechapel District, at the end of the year 1855, would be about 84,000, if the same annual rate of increase continued, (viz:—1.11 per cent.) since the last census was taken, as prevailed during the years 1841—50. It is therefore upon the existing amount of the population, that we may, at the commencement of our labours, estimate the rate of mortality. It appears from the returns of the Registrar General, that the total number of deaths which were registered in the Whitechapel District for the year ending December 31st, 1855, was 2459, which is at the rate of 47 per week. We must however, deduct from the 2459 deaths, a portion of the mortality of the London Hospital and of the Military Hospital of the Tower, the former having a mortality of 313, and the latter 10, making together 323 deaths. These being deducted from the 2459 deaths, leave 2136. But to this number must be added the deaths of persons belonging to this district, who died in the London Hospital, and in the other Hospitals in London, and were registered elsewhere; and these we may fairly take at one-fourth, or 78, which being added to 2136, shows a mortality for the whole district of 2214.

I stated in my fourth weekly report, that the Whitechapel District, from the nature of the soil, and from its elevation, ought not to be an unhealthy one. The subsoil is gravel, and its average height is 28 feet above the high water Trinity Mark, yet the mortality is much greater than in most of the other districts in London.

The annual mortality of the Whitechapel District, for the 10 years 1841—50, was 29 to 1000 living, or 1 in 34 of the whole population. This is an excess of 12 deaths annually over those that would have happened if the mortality had been 17 in 1000 living, which number the Registrar General considers, in our present imperfect state, to be natural deaths, referring all above that number to artificial causes. The mortality of the Whitechapel Dis-

trict, since the above-mentioned period, is now somewhat diminished, it being for the year 1855, 27 in 1000, or 1 in 36 of the whole population.

This diminution in the rate of mortality, small as it is, may be looked upon with some little satisfaction. In order to account for this favorable result, I may state that, while I was one of the Medical Officers to the Whitechapel Union, many of the localities of the poor were much improved; nearly all the courts in the Aldgate Registration District were paved, sewers were made in some of the worst places, and more attention was paid to the cleansing of the streets and courts. The Trustees appointed under the provisions of the "Whitechapel Improvement Act," caused many of the worst districts in the Parish to be well paved; and, if such powers continue to be exercised, very few of the courts will long remain unpaved. Since the Tenter Ground has been paved, the health of the inhabitants has been far more satisfactory. Fever and other zymotic diseases, which were of frequent occurrence before that locality was paved, are now much diminished.

The partial success which has attended the exertions of the Local Boards, in paving and draining the unhealthy places, gives us encouragement to persevere in the same course. In addition to these sanitary improvements, two very valuable Acts of Parliament, relating to the regulations of common lodging houses, have been recently enacted, from the operation of which, most important results relating to the public health have been obtained. One of these Acts is entitled "An Act for the well-ordering of common lodging-houses" (1851,)—the other, "An Act for making further provisions with respect to common lodging-houses" (1853).

Under the provisions of these Acts, every common lodging-house must be registered, together with the names and residences of the keepers of such lodging-houses, and the number of lodgers authorized according to the Act to be received therein. The keepers of common lodging-houses must give immediate notice to the local authority, whenever a case of infectious or contagious disease occurs in any person sleeping in the house. Common lodging-houses may be inspected by any officer of the local authority at any time, and it is incumbent upon the keeper of a common lodging-house, thoroughly to cleanse all the rooms, passages, stairs, floors, &c., and to limewash the walls and ceilings *twice* every year. The local authority can compel the keeper of every common lodging-house to provide a proper supply of water for the use of the lodgers. All such sanitary regulations should be at once adopted by the landlords of the tenements occupied by the poor.*

* There are 169 registered common lodging-houses (exclusive of the Metropolitan Chambers in Albert-street) in the Whitechapel District, kept by 100 different persons. The number of rooms occupied is 653, in which about 3,215 persons sleep nightly, 180 cubic feet of space is allowed for each person in a common lodging house; 5ft. by 6ft., or 30 superficial feet are allowed for each person when the ceiling is 6ft. high; when it is under 6ft. or a sloping roof, then 50 superficial feet are allowed to each person. As the police or local authority has the power of limiting the number of persons in every room of a common lodging house, so has the District Board the power of preventing overcrowding in any of the tenements of the poor. A conviction, under the 29th section of the "Nuisances Removal Act," has taken place, and the full penalty of 40s. for each house, inflicted upon the tenant of two houses, in the Holborn District, where overcrowding existed. There are very few rooms occupied by the poor in this district, in which more than four persons can sleep without endangering their health.

The unhealthiness of a district is not so accurately shown by the total number of deaths annually taking place in it, as by the number of deaths from zymotic diseases; for these diseases are usually considered as preventible, that is, arising from causes which we have it in our power to remove. In order to show the relative amount of mortality in this and some of the other districts in London from zymotic diseases, and the proportion it bears to the total mortality, and the proportion of deaths from typhus fever to deaths from other epidemics, I have prepared the subjoined table:—

DISTRICTS.	Population in 1851.	Deaths from all causes in 1855.	Deaths from Epidemics in 1855.	Deaths from Typhus Fever in 1855.	Proportion of Deaths from		
					Epidemics, to all causes.	Typhus, to all causes.	Typhus, to other Epidemics.
					One in		
Kensington	120,004	3042	553	104	5.5	29.2	5.3
Marylebone ...	157,696	3818	627	66	6.1	57.7	9.5
Hackney	58,429	1499	258	72	5.8	20.8	3.6
Clerkenwell ...	64,778	1459	280	42	5.0	34.5	6.7
Shoreditch	109,257	2985	660	147	4.5	20.3	4.5
St. George's East	48,376	1244	298	45	4.2	27.6	6.6
Stepney	110,775	2857	527	140	5.4	20.4	3.7
Bermondsey ...	48,128	1214	297	70	4.1	17.3	4.2
Lambeth	139,325	3328	642	120	5.2	27.7	5.3
Camberwell ...	54,667	1361	264	34	5.1	40.0	7.7
Lewisham	34,853	860	153	23	5.6	37.3	6.6
WHITECHAPEL..	79,759	2459	469	130	5.3	18.8	3.6

From the above table, it appears that the proportion of deaths from epidemics to deaths from all causes is greatest in Bermondsey, the deaths being one in 4.1. The proportion of deaths from typhus fever, to deaths from all causes, is also greatest in Bermondsey, being one in 17.3; but the proportion of deaths from fever to deaths from other epidemics, is less there than in Whitechapel, Hackney, and Stepney, in which districts the proportion of deaths from typhus to other epidemics is in the two former, one in 3.6, and in the latter one in 3.7.

A fact for which I was totally unprepared, is made manifest by the above table, viz:—that the Hackney district, which has been considered one of the healthiest, having a mortality of one in 51, is, as regards the mortality from epidemics as unhealthy as the Whitechapel district, the former having a proportionate mortality from these causes of one in 5.8, and the latter one in 5.3.

The sub-district of Dulwich, having in 1851, a population of 1362, forms a striking contrast in its rate of mortality from epidemics to that of other districts. Only ten deaths from epidemics, including one from typhus, were registered in that sub-district during 1855.

It is perhaps not generally known that the ratio of births to deaths is greater in the unhealthy than in the healthy districts; one death in 33 and one birth in 28 occurring in the unhealthy, and one death in 56, and one birth in 42, in the healthy districts. The mortality, as the Registrar General remarks,

“is 66 per cent. higher in the unhealthy, than in the healthy sub-districts; the proportion of births is 51 per cent. higher in the unhealthy than in the healthy sub-districts.”

The great mortality in the unhealthy districts arises from the large number of deaths among infants and young children. It therefore appears that excessive infantile mortality does not tend to lessen the amount of population.* The further consideration of this important and interesting question I must defer to another opportunity.

I may here observe, for the information of some persons who may read this report, that the words *epidemic* and *zymotic*, which occur so frequently in my sanitary reports, are derived from the Greek, the former signifies prevalent upon the people, the latter apt to ferment it being supposed that such diseases were produced and propagated by a kind of fermentation. In the weekly returns of the Registrar General, the following diseases are called epidemic, viz: small pox, scarlet fever, measles, whooping cough, diarrhœa and typhus. These diseases are always more or less prevalent in the close, overcrowded, and confined places of large towns; but other diseases sometimes assume an epidemic form, as cholera, influenza, carbuncle, erysipelas, croup, &c.

The number of cases of fever attended by the Medical Officers of the Union for the year ending Lady-day, 1855, amounted to 2721; and the whole number of pauper cases of sickness, which were attended by them during the same period, amounted to 16,818. This large amount of sickness, a great proportion of which is from preventible causes, enjoins upon your sanitary officers the necessity of great exertions *to seek out*, and remove all known causes of disease; and if an uniform system of dealing with nuisances were adopted in every district, the whole metropolis would be greatly benefited.

The following are some of the principal causes of the ill health and high rate of mortality in this district:—

1. The want of an efficient sewerage.
2. The escape of deleterious gases from the sewers.†
3. The existence of numerous cesspools and open privies.
4. The want of impervious house drainage.‡
5. Putrefying animal and vegetable matter lying on the surface of the streets, owing to the neglect of the scavengers.||
6. The long retention of house refuse in uncovered receptacles, in confined places, and in close proximity to occupied rooms.

* The death of unweaned children is speedily followed by new creations.

† This arises from their imperfect original construction. If the sewers had a sufficient fall, and were flushed with water, the trapping of the gullies would be unnecessary.

‡ It is probable that more cases of illness, in respectable families, are produced from defective drainage, than from any other cause.

|| The present mode of cleansing the streets is very faulty. The mud is swept up to one side of the street, where it is allowed to remain for several hours, to the great annoyance of the public, who are splashed by horses spattering it around and on the foot pavement. Before the Scavengers cart it away, a large portion of the more fluid part has passed down into the sewers, and another large portion has escaped by evaporation, thus occasioning most obnoxious exhalations.

7. The existence of badly-constructed, and carelessly conducted slaughter-houses.*

8. Nuisances arising from unwholesome trades, such as—

- | | |
|--------------------------------------------------------------------------|---------------------------------|
| <i>a.</i> Bone boilers & bone crushers. | <i>g.</i> Catgut manufacturers. |
| <i>b.</i> Grease manufacturers. | <i>h.</i> Malt roasters. |
| <i>c.</i> Reburning of animal charcoal
by some of the sugar refiners. | <i>i.</i> Malsters. |
| <i>d.</i> Tallow melters. | <i>k.</i> Cow sheds. |
| <i>e.</i> Soap makers. | <i>l.</i> Piggeries. |
| <i>f.</i> Marine store dealers. | <i>m.</i> Tripe dressers. |

9. The use of unwholesome food, a large quantity of which I have reason to believe is consumed by the poor of this district.

10. The ignorance which prevails among the poorer classes in the management of infants.

11. Children born of diseased parents.†

12. The overcrowded state of the houses of the poor.§

13. The defective state of the ventilation of many of the public buildings which are much frequented.||

14. The long retention of corpses in dwelling houses.

15. The existence, in several localities, of laystalls and manure heaps.

16. The want of a free current of air in many of the courts and alleys.

17. The want of ventilation in several of the houses, especially in those which are built back to back; and where the privies are in the cellars, and without a proper water supply.

18. The dampness of houses, owing to their imperfect original construction, and their present want of repair.

* The 55th clause of the Building Act, 1844, enacts, "That it shall not be lawful for any person to establish or newly carry on any of the following businesses, viz:— blood-boiler, bone-boiler, fellmonger, slaughterer of cattle, sheep, or horses, soap-boiler, tallow melter, tripe-boiler, and any like business, offensive, or noxious, either in any building or vault, or in the open air, at a less distance than forty feet from any public way, or than fifty feet from any other buildings of the first or dwelling-house class, or if any person establishes anew any such business, on conviction, such person is liable to forfeit for every day during which such business shall be carried on, a sum not exceeding fifty pounds." By virtue of an Act of Parliament passed in the reign of Edward 3rd, butchers were prohibited from slaughtering cattle within the City of London.

† How to mitigate the large amount of suffering, entailed upon the helpless portion of the population by diseased parents, is a subject of immense importance, and has not as yet been duly considered. It involves questions of morality; and the public, from false notions of delicacy, shun the investigation of it. The mortality from congenital syphilis is far greater than is shown in the returns of the Registrar General. Deaths occurring from this disease, are frequently attributed to other causes.

§ The overcrowding of the population, in some of the districts in large towns, is perhaps, the most prevailing cause of the great sickness, and high rate of mortality, which is found to exist there. According to the density of the population, the annual deaths to 1,000 living, vary from 15 to 36.

|| It is not unfrequently remarked, by persons who have felt indisposed after having spent a few hours in a crowded room, that "they had taken cold;" it would be more correct to say, "they had taken poison."

19. The want of good paving in many of the courts and streets.

20. The want of good paving in the yards and cellars of many of the houses occupied by the poor.

21. The deficient supply of water.

22. The use of water, of a bad quality, such as is taken from the public pumps, or from the uncovered butts and cisterns; especially where these receptacles are not frequently cleansed, and are situated in close proximity to the privies.

23. The nuisance arising from the smoke of factories.*

How much each of the above enumerated causes, taken separately, influences the health of the population, I cannot estimate: but I have no hesitation in saying, that everything which is disagreeable and annoying to the senses, if long continued, is injurious to health, unless the individual become acclimatized to its influence. Our senses are given to warn us of danger, and if we neglect or disregard the warnings we receive, through the medium of our sensations, we must pay the penalty in suffering and ill health. Dr. LETHBY, in his report upon the injurious effects of intramural burial, (1855) remarks thus, "ALL THAT EXISTS IN THE AIR WE BREATHE, EXCEPTING NITROGEN, OXYGEN, AND AQUEOUS VAPOUR, IS POSITIVELY HURTFUL TO US."

If the remark above cited be true, and if there exist in the air an unpleasant odour, or any thing which produces a painful sensation, I do not think it can be disputed, it certainly behoves every one who carries on a trade which is a nuisance or an annoyance to the neighbourhood, to adopt every means which experience has pointed out, to mitigate, if not entirely prevent, its deleterious influence. If the nuisance cannot be remedied, it ought to be suppressed; for the atmosphere is common to all, and no man has a right to contaminate it; neither has any man a right to injure the property of his neighbour, by carrying on a business, whereby the land in the vicinity may become depreciated in value. The absurdity of the common remark, that "if persons come to a nuisance, they must therefore put up with it," is so obvious that I need not attempt to refute it. It was laid down by Chief Justice ABBOTT, in the case of *REX v. NEIL*, that "It is not necessary that a public nuisance should be injurious to health; if there be smells offensive to the senses, that is enough, *as the neighbourhood had a right to fresh and pure air.*" The number of years that a nuisance has existed, through the forbearance of neighbours, affords no prescriptive right for its continuance. It was declared by LORD ELLENBOROUGH, in the case of *REX v. CROSS*, that "It is immaterial how long the practice may have prevailed, for no length of time will legitimate a nuisance." Again, LORD MANSFIELD, in the case of *REX v. WHITE*, held that "It was not necessary that a smell should be unwholesome; it is enough, if it renders the enjoyment of life and property uncomfortable."†

* It was enacted in the reign of Edward 1st, That no person should be allowed to light any furnace near the Tower of London during the stay of the Queen and Nobles at that fortress.

† The Laws of England, relating to Public Health, by TOULMIN SMITH.

Numerous complaints have been made by the inhabitants, of the nuisances arising from bone boiling, and animal charcoal burning, in this district, both which are not only annoying, but highly injurious to health. "*Sic utere tuo ut alienum non lædas,*" is a golden rule; it may be thus translated—Do what you like with your own, provided that by so doing, you do no injury to your neighbour.

As the want of a good surface drainage, consequent upon a defective state of the paving in the courts and alleys, is one of the principal causes of the ill health which prevails so extensively among the poor in this district; and it being in the power of the Board to cause all these badly paved localities to be improved; I have, at this early stage of our labours, brought before you a list of all those places in your district, occupied by the poor, which require paving. I earnestly hope that the landlords of the unpaved courts, will, with as little delay as possible, cause a good level pavement to be laid down in each; for a well flagged court, if properly supplied with water, and efficiently drained, can easily be kept clean, and the ill effects of damp will be in a great measure prevented. In a sanitary point of view, I would recommend that, in flagging the courts, the stones should slope gradually towards the centre, so as to obviate the unseemly appearance of the open channel, which is frequently obstructed with dirt, and where water occasionally stagnates.

The following is a list of the courts in the Whitechapel District, which require re-paving. I have not enumerated any of the principal streets, for they are under the exclusive charge of the Surveyor.

WHITECHAPEL PARISH.

Union-court	Elizabeth-place	Devonshire-place	Davis'-buildings
Osborn-court	Swan-yard	Moss-buildings	Abel's-buildings
Hanover-court	Little Love-court	Vine-court	Johnson's-change
Frostic-court	Little Middlesex-str.	Hampshire-place	Lynn-court
John's-place	Love-court	Tongue-yard	Johnson's Back - change
Old Montague-court	Hebrew-place	Little Tongue-yard	White Horse-court
Montague-place	Boar's Head-yard	Barleymow-court	Chamber-court
Lamb-court	Inkhorn-court	Swan-yard	Parson's-court
Green Dragon-yard	King's Arms-court	Irish-court	Holloway-court
New-court, George-yd	Fann-court	Little Prescott-place	Rose-court
Hobb's-court	Queen Ann-street	Brownson's-court	Russell-court
New Castle-place	Elizabeth-place	Brunswick-place	Swan-court
Old Castle-court	Wellington-place	Williams-rents	Shorter's-rents
Three Tun-alley	John-street	Friendly-buildings	
Cox's-court	Pratt-alley	Mundy's-court	
Horseshoe-place	Parsey's-gardens	Everard's-place	

SPITALFIELDS PARISH.

Fleur-de-Lis-court	Phœnix-place	Wilkes-court	Speck's-buildings
Maidenhead-court	Quaker-street	Diamond-court	John's-court
King-court	Crown-court	Vine-court	Barnes-alley
Matthew-court	Jeffries-buildings	Vine-place	Rose & Crown-court
Canterbury-court	Pope's Head-court	Barber's-yard	Purcer's-court
Wood's-yard	Union-court	Spital-street	Peck's-yard

SPITALFIELDS PARISH—CONTINUED.

Red Lion-court	Fisher's-alley	Saw-yard	Osborn-place
Tenter-court	Cobb's-yard	Rose-court	Union-court;
New-court, Dorset-st.	Cox's-square	Flemming's-court	New-court
Frying-pan-alley	Bull-court	George-street	Harriett-place
New-ct. Middlesex-st	Little Montague-street	George-court	Neatsby-court
King's Head-court	Bell-court	Sarah's-place	Union-place
Tuson-court	Eastman's-court	Dale's-place	Seven Star-yard
Tripe's-yard	Wentworth-court	Wilson-place	
Dinah's-buildings	Ann's-place	Keate-court	

MILE END NEW TOWN.

Unanimous-row	Garden-place	Pleasant-row	Ellerms-place
Buttress-gardens	John's-place	Spital-court	Carter's-rents
Bell-place	Ramas's-place	Phoenix-place	Sarah's-place
Eele-place	Ann's-place	John's-place	Hobson's-court
Spring-gardens	Ann's-court	Hunt-court	
George-court	Beaumont-place	Caroline-place	

ALDGATE.

Darby-street	Peter's-court	Wells-yard
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NORTON FOLGATE.

Fleur de Lis-court	Cork-alley	Moor's-gardens
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OLD ARTILLERY GROUND.

Parliament-court.

The subjoined tables show the amount of work which your Inspectors have performed since the books now in use first came into operation,

NORTH SIDE OF THE DISTRICT, OCTOBER 14, 1856.

Number and result of Nuisances reported since 14th July, 1856.

Nuisances removed Dust, Gullies, &c.	Nuisances removed by improved Drainage, &c.	Works in progress in reference to improved Drainage	Works not yet com- menced	Total
491	210	98	49	848

SOUTH SIDE OF THE DISTRICT, OCTOBER 14, 1856.

Number and result of Nuisances reported since 14th July, 1856.

Nuisances removed Dust, Gullies, &c.	Nuisances removed by improved Drainage, &c.	Works in progress in reference to improved Drainage	Works not yet com- menced,	Total.
324	102	60	63	549

Before the 14th July, your Inspectors viewed about 800 nuisances, but correct records of them were not kept. The total number of nuisances which have come under the notice of your Inspectors, since their appointment in February last, is 2,197. I am informed by your Surveyor, that permission has been granted, to the owners of about 120 houses, to drain them into the sewers.

For the information of the inhabitants of the district, I may mention that a General Complaint Book is kept at the office of the Board, No. 15, Great Alie Street, and is open, during office-hours, to all persons who have complaints to make respecting nuisances, the neglect of the scavengers, in not properly cleansing the streets, or not removing the dust and refuse from private houses, &c. All complaints are enquired into, and the localities visited by your Inspectors, with as little delay as possible; and notices to remove any nuisance are promptly served upon the owners of the premises where such nuisance exists. If the nuisance be not removed within a given time, the sanction of your Board is requested, to allow further proceedings to be taken.

The only sewer, which has as yet been constructed by order of your Board, is in Little Prescott Street, of about 100 feet in length. This sewer has afforded great relief to the inhabitants of Prescott Place, where there was a large overflowing cesspool, which occasioned them great discomfort and ill health. The owners of a few only of the houses in the vicinity, have availed themselves of the advantages of this sewer, but those who have neglected so to do, have had a notice from your Inspector to drain their houses into it. In every instance, where a new sewer is laid down by your Board, the law, which compels the owner of every house situated within 100 feet, to drain into it, should be strictly enforced.

Stone-ware is the material best adapted for the purpose of house drainage. Earthen-ware is frequently used, but as it is porous, its use is objectionable.

Having, in the preceding remarks, briefly alluded to the subjects of paving, drainage, overcrowding, and the existence of nuisances, in their relation to public health, I now proceed to the consideration of the important question of water supply. It is a well known fact, that the use of bad water is a prolific source of disease: but if there be any persons who doubt the fact, I will subjoin, in the form of notes, a few instances of the fatal effects of drinking water from an impure source.* In consequence of the inhabitants

* DR. SUTHERLAND, in his Report on Epidemic Cholera (1855), says that "In a street at Salford, containing 90 houses, 19 cases of cholera, and 25 deaths occurred among the inhabitants of 30 of these houses, who used water from a well, into which a sewer had leaked; while in the remaining 60 houses, which derived their water supply from purer sources, there were 11 cases of diarrhœa, but neither cholera cases, nor deaths."

MR. GRANT, Surveyor to the late Metropolitan Commission of Sewers, in answer to the question, whether he had met with cases of excessive mortality, which appeared due in any manner to the nature of the water used by the sufferers, says that "During the prevalence of Cholera, in 1849, he reported to the Metropolitan Commissioners of Sewers, two remarkable cases of excessive mortality, which were, in his opinion, clearly traceable to the contaminated water used by the inhabitants. The first case was that of a court, called Surrey Buildings, Thomas Street, Horsley Down, consisting of 13 houses, the backs of which were towards Truscott's Court, of similar character and extent. In Surrey Buildings, nine or ten persons died of cholera in a few days, and in Truscott's Court, not one. In the first court, the people were supplied with water from a well, on a level with the pavement, from which foul water drained into and polluted it; the other was supplied with pure water. This was the only point in which the two courts differed, viz. the water-supply; "and whilst in one court, one or two individuals died in every second house, in the other the inhabitants remained safe." "The second case was that of Albion Terrace, Wandsworth Road, which consisted of 17 houses of a superior class, in which some 25 to 30 persons died in the course of 10 days. The terrace was supplied by a spring, which passed through imperfect pipes and tanks, close to cesspools and drains. The water got contaminated after a heavy shower of rain, in July, and that frightful mortality occurred among persons in

of Hebrew Place, and Love Court, Petticoat Lane, complaining of the impure state of the water, derived from a pump (their only source of supply) I was induced to make an enquiry into the actual condition of the water in this and some of the superficial wells in the district. The following table shows the amount of impurity in grains or degrees in five of the superficial wells, which are used by the inhabitants of the district.*

	Love Court.	High Street.	Hooper Square.	Road Side.	Johnson's Change.
Organic Impurity.....	22.88 grs.	6.32	16.56	14.18	19.76
Inorganic Impurity	165.92	71.36	92.28	59.52	93.84
Total Grains per gallon	188.80 grs.	77.68	108.84	74.00	113.60

It may be interesting to some persons, to compare with the above the analysis of three specimens of sewage water, taken from different sewers. The sewage water in Silver Street, Golden Square, when examined, writes Dr. R. D. THOMSON, who made the analysis, "was found to hold in suspension much organic matter, and to leave a residue by evaporation of 88.68 degrees or grains per gallon, of which 26.88 consisted of organic matter." The fluid contents of the sewer in Peter Street, gave 48.98 grains of residue per gallon, and 4.8 grains of organic matter; while the sewer in Husband Street was found to yield 58.6 grains of residue, including 6.04 grains of organic matter.

The total impurity which was found in the New River, and East London Water Companies, varies from about 17 to 23 grains per gallon, in which is a quantity of organic matter, varying from $2\frac{1}{2}$ to 4 grains. The analysis of these waters, made in 1856, by Messrs. HOFFMAN and BLYTH, show a diminution in the amount of organic matter.

Although London is not at present supplied with water of a better quality than is distributed by the above named companies, I apprehend that few

easy circumstances, whilst the population east and west of this terrace was not attacked. The water-pipes served the houses from 1 to 17 inclusive, and these were the exact limits of the ravages of the disease."

Some extraordinary and interesting facts, bearing upon this subject, are related in the Report of the Sanitary Inspector of the Golden Square District, by Dr. D. FRAZER, Mr. THOMAS HUGHES, and Mr. J. M. LUDLOW, showing the influence of the water from a pump, in Broad Street, in producing cholera. Lastly, in Mr. SIMON'S Report on the last two Cholera Epidemics of London, as affected by the consumption of impure water. (1855), it is stated, "In 24,854 houses, supplied by the Lambeth Company, comprising a population of about 166,906 persons, there occurred 611 cholera deaths, being at the rate of 37 to every 10,000 living. In the 39,726 houses, supplied by the Southwark and Vauxhall Company, comprising a population of about 268,171 persons, there occurred 3,476 deaths, being at the rate of 130 to every 10,000 living. The former of these Companies supplied water of as good a quality as any distributed in London, it being taken from a high part of the river, near to Thames Ditton; while the latter supplied the population with water drawn from the river in the neighbourhood of Chelsea." It is important to remark, that the inhabitants using those waters derived from different sources, were, as regards wealth, comfort, occupation, cleanliness, soil, &c., nearly identical, and that it appears that "*the population drinking dirty water, suffered $3\frac{1}{2}$ times as much mortality as the population drinking other water.*"

* Nitric acid was present in all the specimens of water I examined, which shows that organic matter (probably urine) found its way into them. The carbonic acid gas, which gives a sparkling appearance to some of the superficial spring waters in London, is owing to the carbon of the animal and vegetable matter becoming oxydised. Organic matter is found in the soil, underneath the pavement, in quantities varying according to the depth.

persons will remain satisfied with it, when they know that the water distributed at Watford and Plumstead, after being softened by Dr. CLARK'S process, contains only $1\frac{1}{2}$ to 2 grains of organic matter per gallon, while the total impurity contained in these waters is respectively 8.030 and 18.280. The water which is about to be supplied to the inhabitants of Glasgow, from Loch Katrine, contains only 2.23 grains of impurity per gallon, in which is included .82 of organic matter.

In consequence of the impurity of the water in the pumps in Love Court, and Johnson's Change, the inhabitants cannot use it; and they are obliged to obtain water for making tea, and for other culinary purposes, from their neighbours, who are supplied with water from the Water Companies. It is well known that hard water is not adapted for making tea (a beverage highly appreciated by the poor,) unless the infusion be continued for about half an hour, and the temperature maintained near the boiling point during that period. The loss of time, therefore, to the poor, who have no other water supply than what is furnished by these pumps, is, in the single instance of making tea, considerable; and the large consumption of soap, which hard water occasions, is such that they cannot afford to use it for washing. The parties living in the above named localities may therefore be said to be without water, and it is to be hoped that the Churchwardens and Overseers of parishes will, on every occasion, where the poor are not adequately supplied with water, put in force the 27th section of the Metropolis Water Act, to which I have already directed the attention of the Churchwardens of seven of the largest parishes in your district.

I do not mean to say, that the water derived from these shallow wells is at all times unwholesome, and unfit to drink; but, when it is proved that it contains a large quantity of organic matter, it will often happen that such matter is not oxydized, and to drink water under such circumstances would be highly dangerous, as it is impossible to predict, without constant chemical examination, whether the water is fitted for consumption or otherwise.

Whatever may be the quality of the water used by the inhabitants of this district, the want of an adequate supply is greatly complained of by the poorer classes, who, for the most part, are supplied with water from a stand-tap in the court, from which the water flows for about half an hour daily; and the water is sometimes turned on at such an early period of the day, that they cannot avail themselves of it, even if they had proper receptacles for storing it for the day's use.

In consequence of the almost universal complaint, among the poor, of the want of water, I was induced, on the 3rd of July last, to write to the directors of the two Water Companies which supply this district, stating the fact, and inquiring whether it were not possible for them to give a constant supply in all the courts, at a trifling advance of price upon the present rate of payment. To these letters I received answers to the following effect:—If landlords of houses and courts will, on their part, make the needful arrangements in their houses, the directors will be ready and desirous immediately to do what devolves on the Company in the matter. The directors further remark, that the deficient supply of water to the poor arises from the want of proper

receptacles, and the defective state of the lead pipes, cocks, &c. The directors of the New River Company state, that although the time of service is necessarily shortened, on account of the water being delivered under high pressure, a much greater quantity is served daily than heretofore, under low pressure.

Although my principal question was not answered, it would appear, from the statements of the Water Companies, that the landlords are the parties in fault, in not adapting their pipes, &c., to meet an improved system of distributing water, that the poor are not adequately supplied.

The use of stand-taps, butts, and cisterns, ought to be abandoned. The stand-taps not only occasion a great waste of water, but, owing to the want of good paving in some of the courts, the water flowing from them, causes the houses to be damp. Butts and cisterns are objectionable, because the water in them is exposed to the air, and soon becomes contaminated. The constant, or high pressure method, is that which should be adopted.

I am sorry to learn that the Water Companies are about to distribute water by measure; but surely this plan will not be persevered in, for it cannot be considered in any other light, than as a retrograde movement.

In the report which I have just now had the honor of reading, I fear you may consider that I have dwelt too long on some of the points which I have brought before you, and that I have wearied your patience with subjects not strictly in accordance with my duties, as prescribed by Act of Parliament; yet, although all the subjects in this report may not fall within your jurisdiction to consider, I trust that the importance of them will be looked upon as a sufficient apology for my having introduced them.

I am fully sensible of the deep responsibility which belongs to me, in advising your Board on matters relating to the health of the district, and I shall esteem it one of the greatest privileges to be permitted to co-operate with you, in endeavouring to improve the health, happiness, and well-being of our poorer fellow creatures.

I have the honor to be,

GENTLEMEN,

Your most obedient Servant,

JOHN LIDDLE:

OFFICE OF THE BOARD,
15, GREAT ALIE STREET,
GOODMAN'S FIELDS.

13th October, 1856.

Board of Works, Whitechapel District.

REPORT

ON

The Sanitary Condition

OF THE

WHITECHAPEL DISTRICT,

FOR THE THREE MONTHS

ENDING DECEMBER 27, 1856.

Read to the Board, March 2nd, 1857.

LONDON:

PRINTED BY T. PENNY, 121, LEMAN STREET, WHITECHAPEL.

1857.



REPORT.

GENTLEMEN,

In presenting to you my report for the quarter ending the 27th December, 1856, I have thought it advisable to lay before you an account of the sickness and mortality for the whole year, in addition to that for the quarter recently terminated.

Should this proceeding meet your approval, I shall continue to make my report for the last quarter in each year, an annual report.

The proposed arrangement will enable you to compare the rate of mortality in your district, with that of other localities in London, and elsewhere, which is published in the annual reports of the Registrar General.

The total mortality in the Whitechapel District for the three months ending on Saturday, the 27th December, 1856, was 563, including the deaths in the London Hospital, the total mortality for the same period in 1855, was 599.

In the 52 weeks that ended December 27th, 1856, the total number of deaths registered in your district was 237. This number contrasts very favorably with the mortality of the preceding year,—the deaths for 1855 being 2459.

The number of deaths from epidemics, is also less for the year that has just past, than for the one preceding. 469 deaths from these causes were registered in 1855, and 421 in 1856. Measles, small pox, scarlatina, and diarrhœa, proved more fatal in 1855, the deaths from measles being 44, small pox 52, scarlatina 86, diarrhœa 100. In 1856, 12 persons only died of measles, 31 of small pox, 45 of scarlet fever, and 81 of diarrhœa. There was a difference of seven in the mortality from hooping cough, and of fifty-eight from typhus fever; the deaths from the former disease in 1855, were 57, and from the latter, 130; whereas during the last year, hooping cough proved fatal to 64, and typhus fever to 188. The total number of deaths in the London Hospital was, for the year 1855, 313, and in 1856, 297. In the Workhouses belonging to the Whitechapel District, the deaths in 1855 were 332, and in 1856, 353. If the deaths in the London Hospital are excluded, about a fifth of the whole mortality of the district occurs in the workhouses. Although the public health during the last year was unusually good in the metropolis, and the district of Whitechapel partook equally in the benefit, yet, it appears that typhus fever, the plague of modern times, has proved very destructive to the lives of the inhabitants in your district. This sad fact need not occasion in us any surprise, when we consider the great want of sewerage, and the excessive overcrowding which is found to exist in the poor localities. In many places, the ground is so saturated with the contents of cesspools, that even were sewers to be at once made in every street, it would be some time before the inhabitants could be freed from the noxious exhalations of the decomposed animal matter which lies just below the surface of the ground. So long, therefore, as the inhabitants of this district are compelled to breathe an atmosphere contaminated with the effete matter which is given off by human beings, congregated together in confined places, emanations from cesspools, and noxious gases from several of the manufactories, we shall scarcely be justified in concluding that the comparatively improved state of the public health during the past year will be permanent. Had the mortality from fever diminished, there would have been additional cause for congratulation and thankfulness, but we find that, although the Medical Officers of the Union attended 481 cases of fever less during the last year, than during 1855, yet, the total mortality from that disease, as shown by the returns of the Registrar General, is greater. The disease must therefore have been of a severer type.

The ordinary mortality from fever, is said to be 1 in 12. It is most fatal to persons in the prime of life, between the ages of twenty and forty, that period when their exertions are most needed to support and educate their families. How important, therefore, is it to use our utmost endeavours to remove the causes of such a fatal disease, the destroyer of parents, and the consequent pauperism of children !

If there be any persons who should have the boldness to deny that fever is generated in overcrowded and malarious districts ; no one, I apprehend, will dispute the fact that persons living in such places have their powers of life so weakened, that they are unable to resist the effects of those subtil poisons which produce fever, and other epidemic diseases. It is well known that the deaths are twice as numerous in those towns where the houses are overcrowded and situated in badly ventilated localities, as in the country, where the poisonous emanations from the body are diluted and dispersed. It is true, that good nutritious food, warm clothing and fuel, will materially tend to enable the body to resist disease ; but as it is not in our power to provide these, to an unlimited extent, out of the public funds, we must content ourselves by using our best endeavours to remove all deleterious and noxious agents from the habitations of the poor.

The tables of sickness and mortality, showing the amount of illness and the mean duration of life of the various classes in each district, which will be prepared by the Medical Officer of Health, and published by the Local Board, will be instructive to every one, but especially to actuaries and those interested in the science of public health, and they will probably lead to most useful results ; in the mean time they will enable each individual to compare the sanitary condition of his own district, with that of others, and may create a most laudable desire in the inhabitants of adjacent localities to excel in the great work of sanitary improvement.

The value of human life in the Whitechapel District has, within the last eighteen years, materially increased. In 1837 and 1838, the rate of mortality in it was higher than in that of any other district in the metropolis—it being 4.521 per cent, and for the seven years from 1839 to 1844, it was 3.321 per cent., while for the year 1856, it was reduced to 2.598 per cent.—a difference of nearly one per cent. when compared with the last-mentioned period, and almost two per cent. less than the mortality of 1837 and 1838. *The deaths of children under five years of age*, in the Whitechapel district, are far more numerous in proportion than in most other localities. In 1855, they amounted to 1056, (558 males and 498 females). The deaths from all ages were 2459. If we exclude the deaths which occurred in the London Hospital, in which institution very few young children are admitted, from the total mortality, it will be seen that nearly one-half of the entire number of deaths occurs in children under five years of age. Throughout England, the mortality of children under five, is 39 per cent.

In 1821, the population of the Whitechapel District was 68,905. At the last census in 1851, it was 79,759, although between these periods about 1743 houses have been pulled down in order to make room for the various improvements. The building of St. Katharine's Docks occasioned the pulling down of 1033 houses, the Eastern Counties and Blackwall Railways about 150, the new Street from the London Docks to Shoreditch about 560, while probably during the same period not more than 360* new houses have been erected ; yet the population from 1821 to 1851 shows

* Three large lodging houses have been erected in the district, capable of holding about 824 persons, viz., the Sailors' Home and Destitute Sailors' Asylum, 350; Metropolitan Chambers, 234; Metropolitan Buildings, 240.

an annual increase of 362. During the 10 years from 1841 to 1851, the increase was about 800 annually. This increase of the population can only be accounted for by the fact of the labouring class (about 14,000 of whom have been displaced by the carrying out the above-mentioned improvements) crowding themselves into those houses which were formerly occupied by respectable tradesmen and mechanics, and which are now let out into tenements. The poor must live in the vicinity of the place of their occupation. If they live at a distance from it, the loss of time in going to and from their work, must either materially diminish their daily earnings, or occasion in them an unnecessary amount of fatigue. The serious consequences to the labouring population, in removing them from their homes, have been still further increased by the recent enlargement of the London Docks, which has occasioned the destruction of 450 houses, and the removal of 3,500 people from the parish of Shadwell. This reckless pulling down of houses, occupied by the poor, ought to be controlled; at all events, when so many houses tenanted by the labouring class are required for public improvements, security should be given to provide suitable house accommodation for those families who have been compelled to remove. It is estimated that upwards of 6,000 labourers, (permanent and casual) are employed daily in the London and St. Katharine's Docks, and wharves adjacent. This large number of useful men and their families are very badly provided with house room, to the detriment of their health, and the consequent tendency to pauperism. They, and others of the same class, occupy all the out of the way places in the district, into which few persons besides the police and parochial officers enter. They are consequently deprived of the advantages that would be obtained from seeing and associating with others in a superior position of life.

Why should not a class of houses, arranged in flats (so as to be at the same time both ornamental and useful) somewhat after the style of the model lodging houses be built in Commercial-street? This site was almost entirely occupied by working men and their families, amounting to about 4,500 individuals, who were obliged to seek shelter elsewhere, at great inconvenience to themselves, and who by overcrowding other neighbourhoods render them unhealthy.

Queen Ann-street and John-street, Buck's-row, are specimens of the overcrowded places in your district. These two streets contain 89 houses of three rooms each. The rooms are about 9 feet square, and 8 feet in height. The area of these streets is about 6000 square yards, and the population amounts to 761; a space therefore somewhat less than 8 square yards is what is allowed to each inhabitant. All the houses in these streets are without dust bins, and the refuse is thrown on the foot and carriage ways. The houses are in a bad state of repair, and each has a cesspool attached to it, with the exception of 21, John-street, which, by order of the police magistrate, was filled up, and a drain made to communicate with the sewer. The small back yards are damp, dirty, and badly paved. On making a house-to-house visitation in these streets, the Inspector found 18 persons living in one house, and 16 in another. The best, and perhaps the only way of improving this locality, is to pull down all the houses in one of these streets, and convert the two streets into one. The unhealthiness of these streets was brought under my notice by Dr. PAYNE, the Medical Officer of the Union.

Crown-court, Road-side, has also been represented by Dr. PAYNE, as a most unhealthy spot. It consists of 14 small houses of two rooms each, so completely surrounded by the high back walls of the houses in the vicinity, as to exclude the sun's rays and prevent a free circulation of air. As a considerable expense has

recently been incurred in draining and cleansing this confined Court, it may be reasonably expected that some amelioration in the health of the inhabitants will be effected. If, however, sickness of an epidemic character should again occur in this Court, it would probably be more economical to the district, if the ground were purchased by the Board, and the houses pulled down.

Although the Board has power to compel landlords to carry out certain sanitary improvements for the benefit of the health of their tenants, yet, unless the cheering influences of the sun's rays can be made to penetrate the narrow alleys and courts, and a stream of pure air freely admitted, the benefit of all other sanitary arrangements will not be fully experienced. It is the concentration and confinement of the noxious emanations which are given off from the human body, that cause the people living in the crowded localities to suffer so severely in their health.

However desirable it may be to surround London with public parks, or places for recreation, I am convinced that much more immediate benefit would be afforded to the health of the people, if the numerous culs-de-sac were made into thoroughfares, and all projecting houses taken down, which prevented light and a free current of air from passing into the crowded localities.

It is impossible to over estimate the importance of ventilation in reducing the rate of mortality and sickness, and consequently increasing the sum of human happiness. The grand secret of the cause of the improved health and low rate of mortality among the tenants of the model lodging houses, consists in the better ventilation of the buildings, the immediate removal of all excreta by a perfect system of drainage, and by an adequate supply of water.

Previously to my laying before you an account of the work done by your Inspectors of Nuisances, it is necessary to record the proceedings of your Board relating to the new regulation of slaughter-houses in the district, under the provisions of 14 and 15 Vic., c. 61, and the 131st section of the Metropolis Local Management Act. By the former of these Acts, it is enacted, "That from and after the 1st day of December, 1856, no other place within the Metropolitan Police District can be used as a slaughter-house, without a license had for that purpose;" and by the latter, it is enacted, "That before any license for the use of any place, within any parish mentioned in either of the Schedules A and B to this Act, as a slaughter-house is granted, one month's previous notice of the intention to apply for such license shall be given to the Vestry or District Board in which such place is situate, to the intent that such Vestry or District Board, if they think fit, may show cause against the grant of such license."

Agreeably to the provisions of the above-mentioned Acts, fifty persons sent in the required notice to your Board, stating that it was their intention to apply for the necessary license at the next Quarter Sessions. Upon the receipt of these notices, your Board resolved that, by its committees, it would personally inspect the premises of all from whom notice had been received. Before, however, the committees proceeded to inspect the several slaughter-houses, your Board directed your Medical Officer of Health to draw up a code of regulations which should be applicable to all of them, so that the necessary business of slaughtering cattle should be conducted as not to be a nuisance or an annoyance to persons living in the immediate vicinity of the premises. It was suggested that every slaughter-house should have 1stly, An ample supply of water. 2ndly, That it should be paved with flag stones, and the interstices of the stones filled up with a firm cement. 3rdly, That it should be provided with good drainage, and the drains properly trapped. 4thly, That it should be

sufficient size and well ventilated. 5thly, That it should not form any part of a dwelling house ; and 6thly. That it should contain proper covered receptacles for the manure, and other offensive matter, until such could be removed.

Each of your committees having been provided with a copy of the above regulations inspected in rotation, (accompanied by the Medical Officer of Health, and an Inspector of Nuisances), the several slaughter-houses in the district, and in every instance insisted upon the occupier observing those sanitary rules which the Board had sanctioned. Forty of the applicants readily complied with the directions of your committees, and they obtained their licenses at the Quarter Sessions. Three of those who sent in notice to your Board, were in the City of London, and consequently not within the jurisdiction of your Board. The premises of seven were considered by your committees to be unfit for the purpose of slaughter-houses, and intimation was given to the owners that their license would be opposed. In three of these instances, the application was withdrawn, while in the other four, your opposition at the Quarter Sessions was successful, and the licenses were refused.

Your Board, therefore, having succeeded in inducing all licensed slaughterers of cattle in your district to make such alterations in their premises as were considered necessary for the public health, it is highly expedient that your Inspector of Nuisances should periodically inspect (once a fortnight, at least), all the slaughter-houses in the district, to see if the sanitary regulations you enforced are properly observed. It would also be desirable that they should ascertain, if possible, whether animals are slaughtered in unlicensed places, and if such irregularity be found to exist, the law should be put in force against the offending parties, who, if convicted, are liable to the penalty of £5 for each offence.

Owing to the vigilance of the Inspectors of Markets in the City of Loudon, the sale of unwholesome meat is to a great extent prevented there ; but I have reason to believe that much of the unwholesome meat which is sent into London, is consumed by the poor in this and the surrounding districts, to the great detriment of the public health.

Among the causes of ill health enumerated in my former report, mention is made of cow-sheds. Cows cannot be kept in London without occasioning more or less nuisance to persons living in their immediate vicinity. The smell arising from the manure, urine, brewers' grains, and distillers' wash, is very offensive and injurious to the public health. In some places, cows are confined in cellars, where, for want of efficient ventilation, the animals breathe an atmosphere charged with gases evolved from decomposed urine and other offensive matters. This must necessarily produce an injurious effect upon their health, and as a consequence, deteriorate the quality of the milk, either by diminishing the amount of nutritive properties it ought to contain, or occasioning it to be charged with diseased products.

If it has been found necessary for the health of the people that slaughter-houses should be annually licensed, in order to enforce the observance of sanitary regulations in them, it is equally, and perhaps more important, for the benefit of the public health, that all cow-sheds in London should be in like manner licensed, the granting of which license might be opposed by the Local Board, unless proper sanitary regulations were observed in them. It would, however, be much more desirable to prohibit altogether the keeping of cows in densely populated cities and towns.

Since the date of my last report, two persons who had carried on the businesses of bone boiling and grease making, have left the district, one from Speck's-buildings, Samuel-street, the other from George-yard, Whitechapel ; and a manufacturer, who

carried on the pernicious nuisance of re-burning animal charcoal, used for sugar refining, has discontinued the process. If it be necessary for the commercial prosperity of the country that noxious and offensive trades be continued, they should be established at considerable distance from all large towns. The facilities of the transit of goods by railways are now so great, that there can be no necessity for such businesses being permitted in the crowded districts of the metropolis.

In France, all known precautions are taken before factories which are likely to affect the public health are established. In the interior of the large French towns, unhealthy trades, such as slaughter houses, bone boilers, chemical works, &c., are not allowed to be carried on.

968 complaints were entered in the general complaint book, from the 29th September to the 27th December, all of which have been attended to by your Inspectors.

North Side of the District, 27th December.

Complaints relating to Non-Removal of Dust, want of Dust Bins, Stopped Gullies, &c.	Cesspools and other Nuisances of a like nature Removed by Improved Drainage.	Works in progress in reference to Improved Drainage.	TOTAL.
443	68	67	578

Number of notices served since last report 124

Number of summonses taken out for the Removal of Nuisances 9

Number of orders made by Magistrates 5

Courts (private) repaved 4

viz :—Marlborough-court, Hobb's-court, John-place, and Crown-court, Quaker-street.

Number of houses systematically visited in rotation, and particulars obtained as to cleanliness, repair, removal of dust, dust bins, state of the yards, cellars, water supply, privies, drains, number of rooms in each house, number of separate holdings, and the number of inmates in each room :—

In Artillery Registration District 152

Spitalfields ditto 40

Whitechapel, North 18

200

South Side of the District, 27th December, 1856.

Complaints.	Cesspools, &c., removed.	Works in progress.	TOTAL
313	55	22	390

Number of notices served since last report 67

Houses visited.—

In Aldgate Registration District 134

Goodman's Fields ditto 114

Whitechapel Church ditto 51

299

It is gratifying to me to be able to report that your Inspectors, in the course of their house-to-house visitations, have been courteously received. Every body seems to feel that the systematic house-to-house visitation is a public work, undertaken for the public good, and that important results may be obtained from the enquiries of

your Inspectors. Information therefore is readily afforded them, and by this means nuisances have been brought under their notice which would otherwise have escaped observation.

It may be proper to remark, that the house-to-house visitation has not been confined to the poor localities. No distinction has been made between the houses occupied by the rich, and by the poor ; and the advantage of that plan is shown, not only by its tending to disarm opposition and remove jealousy, but by its enabling the Inspectors to discover nuisances in some of the most respectable houses, where they were least expected to exist.

For instance, in Great Prescott-street, Goodman's-fields, it was found that cess-pools were attached to 22 of the houses, although a large sewer runs along the centre of the street. 22 of the houses were without dust bins ; 20 without water supply to the privies, and in 8 instances where water had been laid on to privies, the water supply apparatus was defective.

Complaints of landlords against the water companies are very general. For example, Dr. HELSHAM, who has recently incurred considerable expense in improving his property in Parson's-court, Blue Anchor-yard, by complying with the provisions of the Act of Parliament relating to the supply of water to the privies, informs me by letter, that after he had erected water butts and provided pipes, taps, &c. for the purpose of flushing the soil-pans, the New River Company refused to supply the water, unless the privies are provided with "some complicated machinery of a bell-pull character quite unsuited to the fists of Irish labourers."

The object of the Water Company in making it "imperative that every pipe by which water is drawn from any cistern or other receptacle for the use of any closet, soil-pan, or privy, be furnished with some properly constructed SELF-CLOSING stop cock or valve," is, to prevent a "*waste of water.*" But how any quantity of water can be *wasted* in the poor localities, it is difficult to imagine, when the water is turned on once a day only, for a period varying from 20 minutes to half-an-hour ; in which time the butts or tanks have to be filled for the use of the inhabitants. The Water Companies, so far from assisting the municipal authorities in carrying out sanitary improvements, are by such proceedings the greatest obstacles in the way. They are, moreover, armed with very considerable powers. For instance, "Any person acting under their authority, is empowered between the hours of nine of the clock in the forenoon and four in the afternoon, to enter any dwelling house or premises supplied by the Company, in order to examine if there be any waste of water ; and if such person shall at any time be refused admittance into such dwelling house or premises, for the purpose aforesaid, the Company may forthwith withdraw the supply from such house or other premises." Again, "Every person supplied by the Company, is required to provide a proper cistern and ball cock, and to keep the same in such repair as shall effectually prevent a waste of water. From any person neglecting to do so, the Company are empowered to withdraw supply ; *and such person shall forfeit to the Company for every such offence, a sum not exceeding FIVE POUNDS.*"

Before concluding this report, I wish to draw the attention of the Board to the necessity of erecting urinals in the district. It is of the utmost importance to the public health that such conveniences should exist. In order therefore to make them of the greatest possible utility, they should be erected in the most public and accessible places, and not in retired spots, under gate-ways and bye-places. The centres of broad thoroughfares are the best localities for urinals, where, if properly constructed, they will not be an annoyance to any person.

Cases of Sickness in the Spitalfields Medical District, under the care of Mr. HART, for the year ending Dec. 27, 1856

Ending	Small Pox.			Measles.			Scarlet Fever.			Hooping Cough			Diarrhœa.	Fever.	Other Zymotic Diseases.	Total Zymotic Diseases.	Other Cases of Illness.	Total.
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.						
March 27th.	10	7	17	3	4	7	5	7	12	4	3	7	31	219	104	397	427	824
June 27th.	3	4	7	2	4	6	1	2	3	3	4	7	37	200	86	346	509	855
Septem. 27th.	4	2	6	2	4	6		4	4	1	2	3	176	226	71	492	413	905
Decem. 27th.				3	4	7	4	6	10	3	2	5	47	*139	69	277	506	783
Totals...	17	13	30	10	16	26	10	19	29	11	11	22	291	784	330	1512	1955	3367

*14 Cases occurred in Grey Eagle Street, and 12 in Quaker Street.

Cases of Sickness in the Goodman's Fields Medical District, under the care of Mr. SEQUEIRA, for the year ending December 27th, 1856.

Ending	Small Pox.			Measles.			Scarlet Fever.			Hooping Cough			Diarrhœa.	Fever.	Other Zymotic Distases.	Total Zymotic Diseases.	Other Cases of Illness.	Total.
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.						
March 27th.	11	12	23	1	1	2	5	6	11	13	13	26	25	116	26	229	609	838
June 27th.	4	9	13	2	4	6	7	5	12	4	6	10	25	94	31	190	609	799
Septem. 27th.	7	2	9	5	3	8	7	12	19	1	1	2	172	77	71	358	532	890
Decem. 27th.				11	11	22	11	16	27	2	4	6	37	64	88	244	602	846
Totals...	22	23	45	19	19	38	30	39	69	20	24	44	259	351	216	1021	2352	3373

By the tables of mortality and sickness that I have appended to this report, an idea will be formed of the state of the public health among the poor of your district. Hitherto I have been able only to procure returns of sickness from the books of the Medical Officers of the Union, and from Mr. TEMPLE, the resident Medical Officer of the Eastern Dispensary. No record of cases is kept at the London Dispensary in Spitalfields. If the officers of the Public Medical Charities in the district, and private Medical Practitioners would kindly furnish me with an account of the cases of zymotic diseases which came under their notice, a tolerably accurate knowledge of the state of the public health would be obtained, and I should feel greatly obliged to every gentleman who will give me information upon this important subject.

Cases of Sickness in the Mile End New Town Medical District, under the care of Mr. CHAMPNEYS, for the year ending December 27th, 1856.

Ending	Small Pox,			Measles.			Scarlet Fev-r.			Hooping Cough			Diarrhœa.	Fever.	Other Zymotic Diseases	Total Zymotic Diseases	Other Cases of Illness.	Total.
	M	F.	Total.	M	F.	Total.	M	F.	Total.	M	F.	Total.						
March 27th.	6	3	9	2	1	3				2	2	4	25	151	13	205	353	558
June 27th.	1		1	1		1	1		1	4	5	9	15	86	12	125	354	479
Septem. 27th.										2	6	8	152	74	30	264	300	564
Decem. 27th.	3	2	5	1	1	2			2	3	2	5	29	87	16	144	266	410
Totals....	10	5	15	3	2	5	3		3	11	15	26	221	398	71	738	1273	2011

Cases of Sickness in the Whitechapel Medical District, under the care of Dr. PAYNE, for the year ending Dec. 27, 1856

Ending	Small Pox.	Measles.	Scarlet Fev-r.	Hooping Cough.	Diarrhœa.	Fever.	Other Zymotic Diseases	Total Zymotic Diseases	Other Cases of Illness.	Total.
March 27th.	13	2	1	1	9	141	2	169	157	326
June 27th.	11		1		12	62	13	99	201	300
Septem. 27th.	1		1		46	46	9	103	141	244
Decem. 27th.			1	5	10	*47	8	71	205	276
Totals....	25	2	4	6	77	296	32	442	704	1146
Grand Totals.	115	71	105	98	848	1929	649	3713	6284	9897

*10 Cases of Fever occurred in Queen Ann Street.

Dr. PAYNE, who has the medical charge of the Whitechapel Workhouse, has kindly furnished me with the following return, showing an annual average number of cases of sickness in the Workhouse from Christmas, 1852, to Christmas, 1855:—

Sick Children	23
Midwifery Cases.	155
Syphilitic Cases.	105
Fever.	463
General.	623
Total.	1528

EASTERN DISPENSARY.

Return of Cases of Zymotic Diseases for the year ending 31st December, 1856

Fever	219
Small Pox	3
Measles	13
Scarlet Fever	11
Hooping Cough	24
Cholera	2
Diarrhœa	524
Total	<u>796</u>

Cases of Illness attended annually by the Medical Officers of the Union, from the year 1838 :—

Ending Lady-day	Fever.	General.	Midwifery.	TOTAL.
1838	2537	2695	80	5312
1839	1975	3295	98	5368
1840	1145	3677	116	4938
1841	1118	5546	155	6819
1842	724	4526	181	5431
1843	1185	5171	259	6615
1844	1563	6335	231	8129
1845	1467	6270	238	7975
1846	864	6176	143	7155
1847	1157	7168	181	8516
1848	4113	10618	209	14,940
1849	2189	7732	226	10,147
1850	1684	13139	234	15,057
1851	2053	9444	325	11,822
1852	2322	9035	439	11,796
1853	2175	6724	386	10,185
1854	2112	8432	408	10,952
1855	2721	13737	360	16,818
1856	2239	9790	456	12,485

Deaths from Epidemics in the Whitechapel District during the Quarter ending 29th March, 28th June, 27th September, and 27th December, 1856.

Date, March 29th	Small Pox.	Measles.	Scarlatina	Hooping Cough.	Diarrhœa.	Typhus.	Grand Totals.
District.							
1	...	1	1	1	...	1	
2	...	1	2	3	1	5	
3 W	6	1	1	7	...	19	
4 W	4	...	...	3	1	27	
5 H	1	...	1	...	...	5	
6	1	...	2	4	...	4	
7 H.M	...	1	2	12	2	3	
Totals	12	4	9	30	4	64	123
June 28th.							
1	...	...	2	1	...	4	
2	1	...	...	6	...	6	
3	2	...	...	...	2	21	
4	6	1	2	2	1	18	
5	1	...	...	1	...	3	
6	2	...	...	...	...	2	
7	...	...	2	2	2	1	
Total	12	1	6	12	5	55	91

W. Workhouse.

H. Hospital.

H. M. Military Hospital.

Deaths from Epidemics, &c., in the Whitechapel District—continued.

Date.	Small Pox.	Measles.	Scarlatina.	Hooping Cough.	Diarrhœa.	Typhus.	Grand Totals.
Sept. 27th							
District.							
1	...	...	...	1	2	1	
2	2	...	4	2	8	4	
3	...	...	1	4	14	11	
4	...	2	2	1	7	6	
5	1	...	1	...	7	5	
6	2	...	1	...	11	3	
7	2	1	3	...	14	3	
Total	7	3	12	8	63	33	126
Dec. 27th.							
1	...	1	1	...	1	2	
2	...	...	1	4	1	7	
3	...	...	...	3	2	12	
4	...	...	5	3	2	6	
5	...	2	4	1	1	7	
6	...	1	2	3	1	...	
7	...	...	5	...	1	2	
Total	0	4	18	14	9	36	81
District.							
1	0	2	4	3	3	8	20
2	3	1	7	15	10	22	58
3	8	1	2	14	18	63	106
4	10	3	9	9	11	57	99
5	3	2	6	2	8	20	41
6	5	1	5	7	12	9	39
7	2	2	12	14	19	9	58
Total	31	12	45	64	81	188	421
..		Population.	Deaths from Epidemics.	Mortality	Density.	Mean elevation in feet above high water Trinity mark.	
		1851.	1856.	per cent.	Persons to an acre.		
1. Artillery District		6769	20	.295	271	41	
2. Spitalfields		15336	58	.378	289	36	
3. Mile-end New-town. W.		14543	106	.728	227	36	
4. Whitechapel North. W..		12530	99	.790	216	36	
5. Whitechapel Church. H.		7818	41	.524	166	32	
6. Goodman's-fields.....		12069	39	.323	237	28	
7. Aldgate. H.M.		10694	58	.540	99	19	

I have the honor to be,

GENTLEMEN,

Your most obedient Servant,

BOARD OF WORKS,

20th February, 1857.

JOHN LIDDLE,

Medical Officer of Health.